REMARKS\ARGUMENTS

Reconsideration is respectfully requested of the Final Official Action of June 1, 2006 relating to the above-identified application.

A request for a three month extension of time is filed herewith, together with the associated fee. A Notice of Appeal is also filed herewith.

Claims 1-29, 41 and 42 stand withdrawn and applicants reserve the right to file divisional applications in due course.

The rejection of Claims 30-33, 39, 40, 43 and 45-50 under 35 U.S.C. § 103(a) as unpatentable over the patent of *De Zen*, U.S. 6,189,269, in view of *Markush*, U.S. 4,097,422, is traversed and reconsideration is respectfully requested.

The present invention relates, *inter alia,* to shaped elongated, reinforced construction elements with a wood-like appearance comprising a composite material of a matrix of thermoplastic synthetic material and a mass of wood particles or other cellulose-containing particles, containing embedded at a desired place in said composite material at least one continuous longitudinal reinforcement element which is in tight engagement with said composite material for providing tensile reinforcement or compressive reinforcement.

Unlike the cited prior art, applicants have formed an elongated reinforced construction element where the reinforcement elements are continuous in the longitudinal direction of the construction element and are placed at desired locations in order to provide the necessary tensile reinforcement or compressive reinforcement for the construction element. The continuous embedded longitudinal reinforcement elements are not mixed with the matrix material formed of the synthetic plastic material and the wood particles or other cellulose containing particles.

Instead, the reinforcement elements in the construction elements of the present invention are located in predetermined desired locations and are in tight engagement with the composite material but not mixed therewith. This can be readily seen in the drawings which accompany the application such as Figure 5 which shows the reinforcement elements 20 discreetly embedded in the flange portion of the construction element.

Further illustrations showing the embedded reinforcement elements located in the desired places rather than randomly mixed in with the matrix material are shown in Figures 4A-4H. Thus, it can be seen that the reinforcement elements of the present invention are distinctly different from the short filler materials shown in the prior art which are essentially uniformally distributed throughout the thermoplastic matrix.

The principal reference relied on in the Official Action is the patent of the Vittorio De Zen which shows a thermoplastic wall forming member with a wiring channel. The thermoplastic matrix contains up to 35% of short glass fibers; see col. 7, lines 51-67. Note the teaching of *De Zen* that the glass fibers should not be too large or too concentrated; see col. 8, lines 1-10. The products shown in the principal reference are formed by coextruting the glass fiber containing thermoplastic material and a smooth thermoplastic skin covering, see col. 8, lines 16-22. A variety of fillers can also be used as mentioned by the patentee in column 9, beginning at line 53.

De Zen does not show the continuous longitudinal reinforcement element embedded in the composite material at desired locations to form tensile reinforcement or compressive reinforcement members as recited in the claims herein. In fact, the teaching in *De Zen* to use short fibers is directly contrary to the use of continuous longitudinal reinforcing elements

according to this invention. Thus, *De Zen* teaches away from the present invention. The Official Action refers to the absence of the word "short" in *De Zen*. The claims herein call for a continuous longitudinal element and *De Zen* fails to show any continuous elements. Even the drawings of *De Zen* show short, discontinuous fibers dispersed throughout his product. Applicants reinforcement elements are located in desired locations and are not dispersed throughout as is required by *De Zen*. Nothing in *De Zen* would suggest to place continuous longitudinal reinforcement elements in desired places in the construction element.

The patent of *Markush* issued in 1978, years prior to *De Zen*, does not provide any reason, suggestion, or motivation whereby a person skilled in the art would be led to add the continuous longitudinal reinforcement elements as defined in the present application to the products of the *De Zen* patent. *Markush* simply shows compositions containing a polyisocyanate that are in the nature of foams which may contain a wide variety of fillers wherein the essential filler is the silica sol. Numerous other solid inorganic or organic substances can be used such as mentioned in column 25, beginning at line 7. Wood chips are mentioned at line 19 along with a large number of other similar and dissimilar materials. The patentee mentions that the materials obtained can be used instead of wood or hard fiber boards, see col. 24, lines 52-57. The products of the *Markush* patent are foam materials intended to be rapid setting of high compressions strength, of high thermal and acoustic insulation with good flame resistance and resistance to fire, see col. 3, lines 51-57.

Applicants acknowledge that wood chips have been used in the past for blending with thermoplastic polymers but there is nothing in the *Markush* patent which would suggest that the glass fibers of the primary reference of *De Zen* be replaced with wood chips.

Indeed, *De Zen* who filed his first application in 1993 is presumed to have knowledge of all prior art at that time. *De Zen* did not mention wood particles when he prepared his application, presumably because it did not occur to him to do so; *i.e.* it was not obvious to *De Zen* to use wood particles.

Furthermore, and with reference to the dependent claims, there is nothing in the references either individually or in combination which would suggest that the mass of wood particles in the polymer account for at least 50% by weight as defined in Claim 31. Neither is there anything in the references which would suggest the subject matter of Claim 43 and those claims which are dependent thereon where the claim specifies that the construction element has embedded therein a plurality of continuous longitudinal reinforcement elements.

In summary, the references cited in the official action show the conventional state-of-the-art with respect to the thermoplastic wall forming members which are formed of channel forming members as shown in the drawings of the *De Zen* patent where the glass fibers are an essential and important part of the invention and where the patentees teach that the glass fibers should be short and uniformly distributed throughout. There is no disclosure of any continuous reinforcement elements embedded in the composite material as required by the claims in the present application. *Markush* is of merely peripheral interest since the reference is interested in making a foam concrete, as a mortar or as a coating for various surfaces. Certainly, there is no disclosure to include in a composite material of wood chips or other cellulose containing particles a continuous longitudinal reinforcement element for providing tensile reinforcement or compressive reinforcement as required by the claims in the present application.

The new rejection of Claims 34-38 under 35 U.S.C. § 103(a) in view of *De Zen*, *Markush*, and *West*, U.S. 3,856,891, is traversed and reconsideration is respectfully requested. *De Zen* and *Markush* are discussed above and the remarks made there apply here as well.

The patent of *West* relates to sheeting material made of olefin polymers. Nothing in *West* would support forming a product as defined herein having a continuous longitudinal reinforcement element embedded in a desired place as specified in the claims.

Accordingly, Applicant respectfully submits that the references failed to make out a case of *prima facie* obviousness for the claimed invention. Therefore, it is respectfully requested that the rejection be withdrawn and the claims be allowed.

Respectfully submitted,

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